

# DESIGN BULLETIN #18/2003 (Revised March 2018)

## Rumble Strip Placement Practices

### **March 2018 Update to Design Bulletin #18/2003**

- Drawings CB6 3.52M6T, 3.52M7T, 3.52M8T Added

### **April 2012 Update to Design Bulletin #18/2003**

- Drawing CB6 3.52M3 Rev.4 Supersedes CB6 3.52M3 Rev.3

### **August 2011 Update to Design Bulletin #18/2003**

- Drawing CB6 3.52M4 Rev.5 Supersedes CB6 3.52M4 Rev.4  
- Recommended Practices to Transverse Rumble Strips at Stop  
Controlled Intersections

### **May 2011 Update to Design Bulletin #18/2003**

Revisions to practices and delivery methods.

### **May 2007 Update to Design Bulletin #18/2003:**

Drawing CB6 3.52M4 Rev.3 Supersedes CB6 3.52M4 Rev.2

### **September 2006 Update to Design Bulletin #18/2003:**

Drawing CB6 3.52M4 Rev.2 Supersedes CB6 3.52M4 Rev.1

### **June 2006 Update to Design Bulletin #18/2003:**

Drawing CB6 3.52M1 Rev.7 Supersedes CB6 3.52M1 Rev.6  
Drawing CB6 3.52M2 Rev.7 is Obsolete, refer to CB6 3.52M1  
Drawing CB6 3.52M4 Rev.1 Supersedes CB6 3.52M4

## Summary

### Trial Projects for Edge Line Rumble Strips

The Department will be undertaking a one year trial of edge line rumble strips to enhance effectiveness and increase coverage. This initiative supports the provincial business goal of Vision Zero to reduce fatalities and serious injuries on roads to zero over the long term.

Alberta Transportation's proposed rumble strips guide is summarized in the following table:

Table 1 AT Rumble Strip Guide

Roadway Type	Paved Shoulder Width (m)	Rumble Strip Type	Pattern	Standard Drawing Number
Divided Highways	All	300 mm Milled Edge Line Rumble Strips	Gap	CB6-3.52M8T
Other Paved Highways	>1.5	300 mm Milled Edge Line Rumble Strips	Gap	CB6-3.52M8T
	0.6-1.5	200 mm Milled Edge Line Rumble Strips	Gap	CB6-3.52M7T
	<0.6	100 mm Milled Edge Line Rumble Strips	Gap	CB6-3.52M6T

The use of the above guide and drawings is subject to agreement of the Project Sponsor on each project.

Centreline and Shoulder Rumble Strips

The department will be installing centerline and/or shoulder milled rumble strips through maintenance contracts, new construction, pavement rehabilitation and/or stand-alone rumble strip construction contracts. Centreline and/or shoulder rumble should be installed where warranted. On two-lane highways shoulder rumble strips are warranted where the shoulders are 1.4m wide or greater. On multilane (divided) highways shoulder rumble strips are warranted on the right hand shoulder if the width is 1.4m or greater. On the left hand shoulder (median shoulder) of divided highways rumble strips are warranted if the shoulder width is 0.6m or greater. Centreline rumble strips are warranted on all undivided paved highways. See the applicable standard drawings for restrictions regarding placement.

Transverse Rumble Strips at Stop Control Intersections

In the past, transverse rumble strips were used in advance of select rural stop-controlled intersections (installed on the stop-controlled approaches) where other traffic control devices/safety measures were proving ineffective in reducing the number of failure to stop collisions. Transverse rumble strips were part of a hierarchy of progressively more attention grabbing traffic control devices used to improve safety at rural stop-controlled intersections.

The current practice is to install transverse rumble strips in advance of all stop-controlled intersections (on the stop-controlled approaches) in rural areas where the posted speed

limit is 80 km/h or greater on the stop-controlled roadways and the highway and intersecting approaches are paved (and under provincial jurisdiction).

Transverse rumble strips are not installed in low speed (posted speed of 70 km/h or less on stop-controlled approaches) and urban environments. Within these environments, rumble strips are not required due to shorter stopping sight distances and heightened driver expectation of encountering stop conditions. However, the need for rumble strips may be reviewed for extreme cases within urban areas.

In addition, transverse rumble strips are not installed within 300 m of a residence (including in rural areas) to avoid noise concerns.

When warranted, transverse rumble strips are installed in accordance with drawing CB6-3.52M3.

The Recommended Practices guideline for the use of transverse rumble strips at stop-controlled intersections is available at:

<http://www.transportation.alberta.ca/Content/docType233/Production/94TransverseRumbleStrips.pdf>

This Bulletin has been developed in order to achieve consistent practices for installation of rumble strips. This opportunity has also been used to fine-tune the placement criteria to improve the safety results and general cost-effectiveness of the program.

### **Key changes**

- Gap pattern edge line rumble strips are to be installed on all highways on one year trial basis.

The following changes have been made to rumble strip placement criteria as of April 2012:

- Centreline rumble strips are only to be installed after painted roadway lines are placed.
- Centreline rumble strips shall not be installed within 50 m at the centre of an intersection.
- Centreline rumble strip depth 9mm +/- 2mm (was 6mm +/- 2mm)
- Shoulder rumble strip depth is 9mm +/- 2mm (was 8mm +/- 2mm)
- Centreline rumble strip spacing 700mm +/- 200mm (was 300mm)
- The centerline may be fogged if directed by the Engineer (this will normally be addressed in a Special Provision).
- Pick-up of detritus created from the milling operation is no longer required. This is replaced by a requirement to “sweep off the road surface”.
- On undivided highways, centreline rumble strips are to be installed along passing and no passing zones (was only at double barrier lines - no passing zones).
- Two lane highways with minimum shoulder width 1.4m (was 1.8m)
- Multi-lane highways with right shoulder of 1.4m (was 1.8m)
- Multi-lane highways with left shoulder of 0.6m (was 1.0m)
- Bridges and bridge approaches where the shoulder exceeds 1.4 m (was 1.5m) – install rumble strips beginning 100m prior to approach and end 10 m prior to deck. Rumble strips are not to be placed on bridge decks unless approved by the department as a “special” installation.
- May install selectively at locations where hazards exist near travel lanes provided the right hand shoulder exceeds 1.4 m (was 1.5m) e.g. railway crossing cantilever

- structures, raised medians etc.
- The Recommended Practices guideline for the use of transverse rumble strips at stop-controlled intersections.

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Revision Date 6: April 30, 2012.  
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Drawing applicable with this Design Bulletin (click on link below):  
CB6-3.52M1 Typical Layout for Continuous Milled Rumble Strips for Shoulders  
CB6-3.52M3 Typical Layout for Milled Rumble Strips for Stop Conditions  
CB6-3.52M4 Typical Layout for Milled Rumble Strips for Centreline  
CB6-3.52M5 Typical Layout for Milled Edge Line Rumble Strips

CB6-3.52M6T Typical Layout for Milled Edge Line Rumble Strips (Gap Pattern For Shoulders less than 0.6m)  
CB6-3.52M7T Typical Layout for Milled Edge Line Rumble Strips (Gap Pattern For Shoulders 0.6m to 1.5m)  
CB6-3.52M8T Typical Layout for Milled Edge Line Rumble Strips (Gap Pattern For Shoulders Greater Than 1.5m)

<http://www.transportation.alberta.ca/655.htm>

Recommended:



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